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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/007,175	10/23/2001	Keijiro Watabe	01650/LH	5677

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EXAMINER	
MISLEH, JUSTIN P	

ART UNIT	PAPER NUMBER
2612	

DATE MAILED: 11/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/007,175	WATABE ET AL.	
	Examiner	Art Unit	
	Justin P Misleh	2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1 - 13 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1 - 11 and 13 is/are rejected.

7)☒ Claim(s) 12 is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 23 October 2001 is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 3-7-02/10-23-01.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: "A moving pedestal for a camera including wheels and sensors for detecting a moving amount thereof."

2. The disclosure is objected to because of the following informalities: misplaced reference sign.

More specifically, on page 12 (line 20), reference sign 20 is described in connection to figures 3 and 4; however, reference sign 20 is only shown in figure 5.

Appropriate correction is required.

Drawings

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following figure is not mentioned in the description: figure 5.

The description of figure 5, including identification of the reference signs therein, is absent from the *Detailed Description* section of the specification.

Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate

prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the Examiner, the Applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. **Claims 1 – 11 and 13** are rejected under 35 U.S.C. 102(b) as being anticipated by Gordon et al. (US Patent No 5,153,833).

6. For **Claim 1**, Gordon et al. disclose, as shown in figures 1C, 2, 5A – 5F, 7, and 8 and as stated in columns 4 (lines 10 – 64), 5 (lines 36 – 58), 6 (lines 31 – 37), 7 (lines 50 – 66), 10 (lines 39 – 68), 11 (lines 1 – 4), and 12 (lines 16 – 37), an image pick-up method for picking up an image of an object with a camera mounted via a pan head on a moving pedestal comprising the steps of:

setting a reference position (initial encoder count from incremental position encoder 194) on a floor surface on which the moving pedestal moves, and a reference angle (initial encoder count from wheel angle encoder 192) of the moving pedestal;

detecting a moving amount of the moving pedestal from said reference position and a rotation angle thereof from said reference angle (by means of the encoders 192 and 194);

finding a position and an angle of the camera with respect to the object on the basis of said reference position, said reference angle, said moving amount and said rotation angle of the moving pedestal (all of the above factors are used by the microprocessor 180 to calculate a "position error signal" used to produce an appropriate motor velocity for the motors of the moving pedestal); and

transmitting data of the position and the angle of the camera with respect to the object, to a computer for creating an image containing a real object image of the object taken with the camera (see column 10, lines 64 – 68; column 11, lines 1 – 4; and column 12, lines 16 – 37).

7. As for **Claim 2**, Gordon et al. disclose wherein said detection means detects the moving amount of the moving pedestal by measuring a length of a portion of a wheel of the moving pedestal, which has been brought into contact with the floor surface. The incremental position encoder (194) is responsible for monitoring motor movement by encoding motor rotations. The wheel moves as the motor moves. Therefore, determining motor movement by encoding motor rotations directly corresponds to measuring the length of a portion of a wheel, which has been brought into contact with the floor surface. By measuring a length, Gordon et al. is determining the distance moved from the reference position (see column 10, lines 60 – 69; and column 11, lines 1 – 4).

8. As for **Claim 3**, Gordon et al. disclose, that the moving pedestal is comprised of three wheels wherein each wheel is provided with a wheel angle encoder (194). The wheel angle encoders (194) provide data to the microprocessor (180), wherein the microprocessor (180)

continuously subtracts the current positional data (including the position and rotation angle of the moving pedestal) from target positional data to obtain a position error signal. Therefore, the rotation angle is calculated based upon the moving distances of all three wheels, which includes two wheels that are distant from each other in terms of a moving direction. In fact, since each of the three wheels are at a separate vertex of an equilateral triangle making up the base of the moving pedestal each two wheels will be distant from each other and the third in any given moving direction.

9. As for **Claim 4**, Gordon et al. as stated above since each of the three wheels are at a separate vertex of an equilateral triangle making up the base of the moving pedestal each two wheels will be distant from each other and the third in any given moving direction. Moreover, all three wheels are equidistant from each other; thus, the two wheels will always be most distant.

10. As for **Claim 5**, Gordon et al. disclose, as shown in figures 1A and 5A – 5F, wherein first and second lines are formed (Y and X) on the floor surface so that they normally cross with each other form said reference position (initial target 20), and two first sensors (B and C) for detecting the first line (Y; see figure 5A) and one second sensor (A; see figure 5B) for detecting the second line are provided on the moving pedestal (all sensors 18 are provided therein) and said reference position and said reference angle are found on the basis of said moving amount at a time when the two first sensor each pass said first line, and said moving amount at a time when said second passes the second (When the sensors begin to move from the initial target 20, the encoders begin to determine a moving amount.).

11. For **Claim 6**, Gordon et al. disclose, as shown in figures 1C, 2, 5A – 5F, 7, and 8 and as stated in columns 4 (lines 10 – 64), 5 (lines 36 – 58), 6 (lines 31 – 37), 7 (lines 50 – 66), 10 (lines 39 – 68), 11 (lines 1 – 4), and 12 (lines 16 – 37), an image pick-up system for picking up an image of an object, comprising:

a camera unit (camera 48) having a structure in which a camera for picking up an image of an object, is mounted via a pan head (rotatable camera head 48) on a moving pedestal (12);

an operation means (microprocessor 180) for calculating a positional relationship between the camera and the object (see column 4, lines 27 – 30; column 10, lines 64 – 69; and column 11, lines 1 – 4);

a setting means (microprocessor 180) for setting a reference position (initial encoder count from incremental position encoder 194) on the floor surface, and a reference angle (initial encoder count from wheel angle encoder 192) of said moving pedestal (see column 6, lines 17 – 24 and 31 – 34);

a detection means (encoders 192 and 194) for detecting a moving amount of the moving pedestal from the reference position, and a rotation angle thereof from the reference angle ((see column 10, lines 39 – 69; and column 11, lines 1 – 4);

wherein said operation means (microprocessor 180) calculates out a position and an angle of the camera with respect to the object on the basis of the reference position, the reference angle, the moving amount and the rotation angle of said moving pedestal (all of the above factors are used by the microprocessor 180 to calculate a "position error signal" used to produce an appropriate motor velocity for the motors of the moving pedestal), and transmits data of the position and the angle of the camera with respect to the object, to a computer for creating an

image containing a real object image of the object taken with the camera (see column 10, lines 64 – 68; column 11, lines 1 – 4; and column 12, lines 16 – 37).

12. As for **Claim 7**, Gordon et al. disclose, wherein said setting means (microprocessor 180) includes a reference detection mechanism (optosensors 18) for detecting the reference position on the floor surface on which the move pedestal moves and the reference angle of the moving pedestal (initial target 20).

The setting means (microprocessor 180) sets a reference position (initial encoder count from incremental position encoder 194) on the floor surface, and a reference angle (initial encoder count from wheel angle encoder 192) of said moving pedestal, which are found from detection values of said plurality of sensors (18; detects that the moving pedestal is at an "initial target 20").

13. As for **Claim 8**, Gordon et al. disclose wherein said detection means detects the moving amount of the moving pedestal by measuring a length of a portion of a wheel of the moving pedestal, which has been brought into contact with the floor surface. The incremental position encoder (194) is responsible for monitoring motor movement by encoding motor rotations. The wheel moves as the motor moves. Therefore, determining motor movement by encoding motor rotations directly corresponds to measuring the length of a portion of a wheel, which has been brought into contact with the floor surface. By measuring a length, Gordon et al. is determining the distance moved from the reference position (see column 10, lines 60 – 69; and column 11, lines 1 – 4).

14. As for **Claim 9**, Gordon et al. disclose, as shown in figures 1A, 1C, and 8, the moving pedestal (dolly 12) includes three wheels (three identical wheel assemblies 30/42); wherein three

encoders (wheel angle encoder 192) are respectively provided for the three wheels (see column 10, lines 50 – 56) for finding a moving distance of a respective wheel in the movement of the moving pedestal (see column 10, lines 60 – 69; and column 11, lines 1 – 4).

15. As for **Claim 10**, Gordon et al. disclose, that the moving pedestal is comprised of three wheels wherein each wheel is provided with a wheel angle encoder (194). The wheel angle encoders (194) provide data to the microprocessor (180), wherein the microprocessor (180) continuously subtracts the current positional data (including the position and rotation angle of the moving pedestal) from target positional data to obtain a position error signal. Therefore, the rotation angle is calculated based upon the moving distances of all three wheels, which includes two wheels that are distant from each other in terms of a moving direction. In fact, since each of the three wheels are at a separate vertex of an equilateral triangle making up the base of the moving pedestal each two wheels will be distant from each other and the third in any given moving direction.

16. As for **Claim 11**, Gordon et al. disclose, Gordon et al. as stated above since each of the three wheels are at a separate vertex of an equilateral triangle making up the base of the moving pedestal each two wheels will be distant from each other and the third in any given moving direction. Moreover, all three wheels are equidistant from each other; thus, the two wheels will always be most distant.

17. For **Claim 13**, Gordon et al. disclose, as shown in figures 1C, 2, 5A – 5F, 7, and 8 and as stated in columns 4 (lines 10 – 64), 5 (lines 36 – 58), 6 (lines 31 – 37), 7 (lines 50 – 66), 10 (lines 39 – 68), 11 (lines 1 – 4), and 12 (lines 16 – 37), an image pick-up system for picking up an image of an object, comprising:

a moving pedestal (dolly 12) including three wheels (three identical wheel assemblies 30/42);

a camera unit (camera 48) having a structure in which a camera for picking up an image of an object, is mounted via a pan head (rotatable camera head 48) on said moving pedestal (12);

an operation means (microprocessor 180) for calculating a positional relationship between the camera and the object (see column 4, lines 27 – 30; column 10, lines 64 – 69; and column 11, lines 1 – 4);

three encoders (wheel angle encoder 192) provided respectively for said three wheels of said moving pedestal (see column 10, lines 50 – 56);

a plurality of sensors (optosensors 18) provided on said moving pedestal (12), for detecting a predetermined mark (targets 20) made on a floor surface ("studio floor") on which said moving pedestal (12) moves; and

a setting means (microprocessor 180) for setting a reference position (initial encoder count from incremental position encoder 194) on the floor surface, and a reference angle (initial encoder count from wheel angle encoder 192) of said moving pedestal, which are found from detection values of said plurality of sensors (18; detects that the moving pedestal is at an "initial target 20") and a pulse numbers counted by said encoders in the movement of said moving pedestal, to said operation means (see column 6, lines 17 – 24 and 31 – 34);

wherein said operation means (microprocessor 180) calculates out a position and an angle of the camera with respect to the object on the basis of the reference position, the reference angle, the moving amount and the rotation angle of said moving pedestal (all of the above factors are used by the microprocessor 180 to calculate a "position error signal" used to produce an

appropriate motor velocity for the motors of the moving pedestal), which are obtained from the pulse numbers counted by said encoders, and transmits data of the position and the angle of the camera with respect to the object, to a computer for creating an image containing a real object image of the object taken with the camera (see column 10, lines 64 – 68; column 11, lines 1 – 4; and column 12, lines 16 – 37).

Allowable Subject Matter

18. **Claim 12** is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

19. As for **Claim 12**, while the prior art simply disclose of a wheel angle encoder connected to the wheel for determining the rotation angle of the wheel and an incremental position encoder connected to a motor for determining the distance traveled in a moving direction of the moving pedestal; the closest prior art does not teach or fairly suggest wherein rollers are provided as being brought into contact with the wheels, respectively, to be rotated along with the rotation of the wheels, and the moving distance of each of the wheels is found from the number of rotation of the respective roller and a pulse number counted by said respective encoder.

Conclusion

20. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure; however, due to the number of cited references, which the Examiner believes to be the closest prior art, the Examiner will not detail the important features therein. The Applicant is

encouraged to take into consideration all of the prior art when making any amendments to the claims.

21. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Justin P Misleh whose telephone number is 703.305.8090. The Examiner can normally be reached on Monday through Thursday from 7:30 AM to 5:30 PM and on alternating Fridays from 7:30 AM to 4:30 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Wendy R Garber can be reached on 703.305.4929. The fax phone number for the organization where this application or proceeding is assigned is 703.872.9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JPM
November 13, 2004

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